AMSAT News Service Weekly Bulletins
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AMSAT NEWS SERVICE
ANS-119

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

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SB SAT @ AMSAT $ANS-119.01
AMSAT to Celebrate Space Day 2007 at the National Air and Space Museum

AMSAT News Service Bulletin 119.01
>From AMSAT HQ SILVER SPRING, MD.
April 29, 2007
To All RADIO AMATEURS
BID: $ANS-119.01

Space Day 2007 at the National Air and Space Museum
Saturday, May 05
10:00 AM to 5:00 PM
Throughout the National Mall building
Admission: Free

Space Day 2007 will be another action-packed day of astronaut appearances, hands-on activities, book signings, tours, and special stories for children, all surrounded by the world's most famous space artifacts.

Especially exciting will be a sneak peek at the much-anticipated successor to the space shuttle, the Orion Crew Exploration Vehicle. This Lockheed Martin-designed spacecraft of the future will be on view in the shadow of one of the most historic spacecraft of the past - the Apollo 11 command module, Columbia.

Have a blast learning how you can build your own model rocket with the Northern Virginia Association of Rocketry. The group will bring their own home-built rockets for you to see and lots of information on building a flyable rocket.

Local robotics teams will show off their latest creations with a robot petting zoo. The teams will demonstrate their expertise in building and running robots for competition.

Participating organizations include Lockheed Martin, NASA, and
AMSAT-Radio Amateur Satellite Corporation. AMSAT will be exhibiting
in the Milestones of Flight Gallery under SpaceShipOne, near the
moon rock.

Space Day 2007 at the National Air and Space Museum is made possible
by the generous support of Lockheed Martin.

More information is available on-line at:
http://www.nasm.si.edu/events/eventDetail.cfm?eventID=633

[ANS thanks Perry, W3PK for the above information]

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SB SAT @ AMSAT $ANS-119.02
AMSAT at Dayton

AMSAT News Service Bulletin 119.02
>From AMSAT HQ SILVER SPRING, MD.
April 29, 2007
To All RADIO AMATEURS
BID: $ANS-119.02

The AMSAT forum at Dayton this year has quite an impressive lineup of
speakers and topics. The day and time of the forum has changed from
past years and should be more convenient for most attendees. The forum
will be on Friday afternoon, May 18, 2007 from 11:15am to 2:00pm.

Speakers and topics during the forum are:
  + Moderator: Barry Baines, WD4ASW, AMSAT-NA Corporate Secretary

  + Rick Hambly, W2GPS, President, AMSAT-NA "Summary of AMSAT-NA
    Activities in 2007"

  + Peter Guelzow, DB2OS, AMSAT-DL President and Bob McGwier, N4HY,
    AMSAT-NA VP - Engineering, "Phase 3-Express: An Update"

  + Jim Sanford, WB4GCS, EAGLE Project Manager "Eagle Status Update"

  + Andrew Glasbrenner, KO4MA, AMSAT-NA VP-Operations and Gould Smith,
    WA4SXM, AO-51 Command Station, "AMSAT-NA Satellite Operations and
    AO-51 Update"

  + Frank Bauer, KA3HDO, AMSAT-NA Director-Human Space Flight, "ARISS
    and Future SuitSat Missions"

Mark this event on your calendar and attend the forum to find out the
latest information about current AMSAT projects.

In addition to free gifts with your membership renewal or joining
AMSAT, we will have a number of other offerings at the Dayton AMSAT
booth.

Updated   Frequency Chart
Updated   "2007 Getting Started With Amateur Satellites" book
New Black Computer backpacks with AMSAT logo
New G6LVB computer controlled rotor tracker boards (bare with
           parts list)
New White SS Golf shirts with AMSAT logo
New Blue LS heavy tee shirt with AMSAT logo
New Blue baseball cap with AMSAT logo

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***New***  AMSAT lanyards with badge clips
***New***  Digital CD with 1200 - 38k4 test signals, WiSP software and
           other digital items
***New*** Green medium weight jacket with AMSAT logo and name/callsign
***New*** 2006 San Francisco Symposium Proceedings
AMSAT Journal CDs
Arrow Antennas
SatPC32, Nova for Windows, SCRAP and IT tracking software
AMSAT clocks
Eagle Decals and Patches
ARISS Patches
AO-7 QSL cards

The Eagle area will have an operational SDX (Software Defined
Transponder) demonstration, 70cm receiver, 1/2 scale model of the Eagle
sturcture, Eagle power generation system, Ultra cap and NiCd battery and
SuitSat 2 hardware.

The outdoor satellite demonstration area will be upgraded and be working
FM and SSB satellites all day, each day.

Gould is also looking for additional volunteers to work 2 hours shifts
in the AMSAT booth on Friday, Saturday and Sunday.  Email your
availability to wa4sxm@amsat.org

Make your plans for the Thursday evening Pizza Party, Friday AMSAT
Forum, Banquet and booth visits, Satellite Demonstrations and Eagle area
for the latest information and hardware.

[ANS thanks Gould, WA4SXM for the above information]

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SB SAT @ AMSAT $ANS-119.03
Update on ISS Amateur Radio Activity

AMSAT News Service Bulletin 119.03
>From AMSAT HQ SILVER SPRING, MD.
April 29, 2007
To All RADIO AMATEURS
BID: $ANS-119.03

Frank Bauer, KA3HDO, who is the AMSAT-NA V.P. for Human Spaceflight
Programs and the ARISS International Chairman wrote this week, "I
wanted to provide a progress report on the ISS Ham Radio activities.
And to address some questions that have come up related to ARISS o
perations and equipment upgrade and repair."

Frank's report follows ...
With the successful Shuttle return to flight, the International Space
Station Program construction has moved into high gear with delivery
and assembly of new ISS modules.  If all goes well, the new European
Columbus Module and Japanese Kibo module will be installed on ISS in
the next 12 months.  This substantial workload on the crew is impacting
ARISS operations directly.

The launching of any new or replacement radios or computers has been
significantly curtailed due to the extremely limited upmass
capability.  There are just too many higher priority activities from an
international space agency perspective and frankly we are a lower
priority.  The extra workload on the crew has taken its toll on ARISS -
they have had very little extra time for Amateur Radio activities beyond
school contacts.  This is somewhat frustrating to the general ham radio
community and the ARISS International Team, though the team is pleased
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that the crew has been able to speak so often with youth groups worldwide, piquing their interest in Amateur Radio, science, technology, engineering and math.

The ARISS team had been hopeful that Charles Simonyi would have been able to restore the Kenwood D700 radio system to full functionality after an accidental reprogramming of the radio occurred near the end of Exp 13. The ARISS team worked diligently with the Simonyi team to get Charles licensed, trained, and prepared to perform the Kenwood reprogramming.

Unfortunately, the ARISS team hit a major hurdle a few weeks before Charles' launch. We learned that additional software certification steps were required to allow the reprogramming software to be used on the ISS computers. Through heroic efforts by the team, final software certification was successfully completed.

Unfortunately, this was completed only a few days before Charles' return from space. As a result, the ARISS team was informed by the mission control team and some of our international team partners that it there was insufficient time to allow Charles to complete the restoration. Thus, the Kenwood restoration was not completed by Charles. This last minute hiccup in software certification was not predictable. So there was no way the ARISS team could have better prepared for Charles' flight.

At this point in time, it appears that a full restoration will require a substantial, concerted effort with full cooperation from our international colleagues and the Russian and US space agencies. We need to make sure that all components necessary for a successful reprogramming are identified, purchased (if necessary), certified, tested and flown together before the radio will be fully restored. Realizing this will be especially challenging due to the upmass issue I described above. This will likely take several months to accomplish as the team will have to begin from square one. In the short term, requests for some investigative analysis by the crew will be made. This will enable the ARISS team to determine if the radio can be partially restored to provide some of the unattended operations that it once provided.

With Charles' successful landing, we have started down this new path. We will continue to keep you informed of our progress.

In closing, we are aggressively working this issue, despite several setbacks. While our plans to have Charles reprogram the radio were thwarted, we were happy that he could speak to so many hams around the world during his short stay. And capture the imagination of students around the globe.

On behalf of the ARISS team, we thank all of you for your interest and enthusiasm in Ham Radio on the ISS.

[ANS thanks Frank, KA3HDO for the above information]

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SB SAT @ AMSAT $ANS-119.04
SSETI-ESEO Launch Date

AMSAT News Service Bulletin 119.04
>From AMSAT HQ SILVER SPRING, MD.
April 29, 2007
To All RADIO AMATEURS
BID: $ANS-119.04

The launch date for SSETI-ESEO, the ESA led student satellite project

intended for Geostationary Transfer Orbit (GTO), has been delayed by approximately one year. It had originally been hoped that this satellite would be a secondary payload on Arianespace launch from Kourou in late November, 2008 but it now seems that the expected secondary payload opportunity will not be available.

Although this delay is regrettable it will give the various teams much needed extra time to finalise and test their systems.

A BBM - "Breadboard model" of the satellite systems and payloads is being produced at the ESTEC facility in the Netherlands for testing purposes. This will commence operations during this summer.

Work continues to develop the AMSAT-UK communications package that is planned to provide a 435 to 2400 MHz (Mode U/S) linear transponder using both analogue and DSP based systems. It will additionally downlink tele-metry at 400 bps and provide command and ranging facilities.

Full details of the project are available at http://www.uk.amsat.org/ click on "News Archive" and then "SSETI".

There will be a presentation on SSETI-ESEO at the AMSAT-UK International Space Colloquium which is being held at the University of Surrey, Guildford, England from Friday 20th to Sunday 22nd July.

This event is open to all Amateurs and SWL's and there will be a special beginners session aimed at newcomers to the exciting world on Amateur Satellite operating. For further information see: http://www.uk.amsat.org/colloquium

[ANS thanks Trevor, M5AKA for the above information]

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SB SAT @ AMSAT $ANS-119.05
SatGate System Closing Down

AMSAT News Service Bulletin 119.05
>From AMSAT HQ SILVER SPRING, MD.
April 29, 2007
To All RADIO AMATEURS
BID: $ANS-119.05

After many years of packet message forwarding via UO-22, GO-32 and AO-51 the Satgate System will close due to a lack of traffic being handled. The total of thirty five worldwide stations in the system a few years ago has dwindled due to this lack of traffic, maintenance problems, change of QTH and Silent Keys.

It was given birth by David Medley, KI6QE who was in California at the time. The chief Guru and driving force over the past partial decade has been Andrew Sellers, G8TZJ who gets credit for developing the software which permitted the Satgate stations to operate in fully automated mode.

Traffic was accepted from the terrestrial packet network using BBS programs like the F6FBB program and routed to the satellites via the WiSP program. It was also downloaded from the satellite and routed into the terrestrial packet network untouched by human hands, all thanks to Andrew.

Roy, W0SL wrote, "My appreciation goes to David for establishing the Satgate System and to Andrew for his effort in keeping this Network going. Thanks also to the remaining few of the Satgates who will be shutting down."

[ANS thanks Roy, W0SL for the above information]

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SB SAT @ AMSAT $ANS-119.06
Satellite Shorts From All Over

AMSAT News Service Bulletin 119.06
>From AMSAT HQ SILVER SPRING, MD.
April 29, 2007
To All RADIO AMATEURS
BID: $ANS-119.06

+ Pop, VU2POP, Secretary of AMSAT India said that planning for a second Indian amateur radio satellite, Hamsat-2 has started. They are asking for proposals from satellite operators, designers, and international AMSAT organizations. You can send your comments to info@amsat.in.

+ The Fuji-Oscar 29 (FO-29) satellite may have gone silent. Reports received via Mineo, JE9PEL state that JARL is asking for any received telemetry to be forwarded to them via lab@jarl.or.jp.

+ AMSAT received the sad news that Tom Calder, N7MPM became a Silent Key Saturday Morning, April 21 at his home in Centerfield Utah. Tom had been in poor health for the past year. Tom was very active on the satellites thru the 1990's.

+ Due to weather concerns forecast for the launch site and recovery areas, the ARBONET-2 high altitude balloon flight originally scheduled for launch on April 27th has been postponed until Saturday May 5th at 9:00 AM CDT.

[ANS thanks everyone for the above information]

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SB SAT @ AMSAT $ANS-119.07
Control Operators Needed for RAFT Radar Test

AMSAT News Service Bulletin 119.07
>From AMSAT HQ SILVER SPRING, MD.
April 29, 2007
To All RADIO AMATEURS
BID: $ANS-119.07

Bob, WB4APR at the US Naval Academy Satellite Lab writes, "We need AMSAT operator help with the RAFT satellite Test."

We need somone with a 2m beam and familiarity with packet that lives in the Southern USA from Arizona to Georgia (AZ, NM, TX, OK, MS, ALA, GA).

RAFT is at its mission life time half-way point, and we have not been able to find anyone in the above footprint to help us conduct the primary mission which was for the satellite to detect its own passing through the DOD's radar fence. When it flies through the North American Space-Object fan beam, we should hear about 1 second tone that anyone can hear on the downlink.

Due to its low orbit and small footprint, turning on the Radar

Transponder can only be done in the shared footprint between the
radar transmitter in North Texas and the command station. The
ideal command station has
these atributes:

1) Lives in AZ, NM, TX, OK, AK, LA, MS, AL, GA, W.FLA
2) A reasonable 2m beam for ops on 145.825
3) A packet TNC
4) A familiarity with dumb-terminal TNC operations such as
   A. Connections, Converse, UNPROTO, etc.
   B. Remote sysop logon to a Kantronics TNC

The objective of these southern command stations is to logon,
send the command to activate the RAFT Radar receiver for 1
minute in anticipation of passing through the fence. Then
hopefully recording any audio heard on the downlink (145.825).
Of course, once the radar receiver is on, everyone in the
footprint should be able to hear it.

For info, see the ANDE-RAFT operations page:
http://eng.usna.navy.mil/~bruninga/ande-raft-ops.html

Several AMSAT hams built this tiny Radar receiver as a possible
common device for all future HAMsats, and we would like to get
feedback on its performance. But they all live up North. If
you have a beam and familiarity with TNC's please let us know.

[ANS thanks Bob, WB4APR for the above information]

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SB SAT @ AMSAT $ANS-119.08
ARISS Status Report for the week of April 23, 2007

AMSAT News Service Bulletin 119.08
>From AMSAT HQ SILVER SPRING, MD.
April 29, 2007
To All RADIO AMATEURS
BID: $ANS-119.08

1. ARISS - Redmond Contact Successful

Students from Redmond High School in Washington State participated in
an ARISS contact on Monday, April 16 via the telebridge station ON4ISS
in Belgium. Twenty students asked spaceflight participant Charles
Simonyi, KE7KDP, twenty questions as approximately 120 students,
parents, teachers and the media looked on. All four local television
stations, KOMO Radio, Seattle Times, Redmond Reporter and Metro Radio
(for a Westwood One national program) attended. To view some of the
media coverage, see:

http://seattletimes.nwsource.com/html/localnews/2003669344_simonyi17e.html
http://www.king5.com/localnews/stories/NW_041607WABsimonyi.1745e420.html
http://www.kirotv.com/video/12165836/index.html
http://www.komotv.com/news/7054477.html
http://q13.trb.com/news/041607-kcpq-redmondspace,0,3107718.story?coll=kcpq-n
ews-1

2. Kursk Contact Successful

On Tuesday, April 17, an ARISS contact took place between the Kursk State
Technical University in Russia and Expedition 15 Commander Fyodor N. Yur-
chikhin, RN3FI, on the ISS. Students had prepared eight questions for

the contact which was successful.

3. Successful ARISS Contact with Cedar Point Elementary

Cedar Point Elementary School in Bristow, Virginia experienced an ARISS contact on Tuesday, April 17 via the telebridge station VK5ZAI in Australia. Nine students asked 19 questions of space visitor Charles Simonyi, KE7KDP. Audio of the contact may be found on Simonyi's website. See: http://www.charlesinspace.com

Scuola Europea Varese in Varese, Lombardia, Italy had an ARISS contact on Monday, April 23 via the telebridge station VK4KHZ in Australia. The school's curriculum includes the study of Earth and the solar system, living organisms, natural forces, gravity and electricity. Students will visit a planetarium, research books and websites, and watch science related movies. They will write essays, produce plays and create drawings. Media outlets will cover the event and the school will produce its own multimedia presentation which will be passed on to other schools in the area.

Kingston Elementary School in Virginia Beach, Virginia had an ARISS contact on Monday, April 23. Students from all grades will participate in activities in the Science, Math and Language Arts curricula related to this event which will include the study of space and weather. Virginia Beach City Public Schools' Office of Media and Communication, Virginia Beach television, local newspapers and television stations, and Ham radio operators have been notified of this event.

An ARISS contact took place with Christian Life Elementary School in Rockford, Illinois on Wednesday, April 25. Christian Life schools have participated in many NASA projects: the high school participated in the U.S. First Robotics Competition, the middle school applied to the NASA Explorer Schools program, and an elementary school teacher attended a NASA Educator Workshop. Elementary school students study the History of Flight, learn of NASA's achievements and will be involved with robotics as they prepare for their ARISS contact.

Students attending the Samuel-von-Pufendorf Gymnasium in Floeha, Germany will participate in an ARISS contact on Saturday, April 28. The school amateur radio club, DL0GYM, was established in 2003 and provides courses to prepare students for their radio license exams. Students are introduced to packet radio, satellite communications, Amateur Television (ATV), and Slow Scan Television (SSTV).

4. Upcoming School Contacts

Liceo Scientifico Statale "Lorenzo Respighi" in Piacenza, Italy has been scheduled for an ARISS contact on Saturday, May 5 at 10:24 UTC. The school plans to incorporate this contact in their curriculum through the study of the law of gravitation, experiments in the absence of gravity, the International Space Station, and English. Italian Astronaut Roberto Vittori has also been invited to visit the school in conjunction with these studies. Students will be required to work on interview skills, write reports and design posters. Media coverage will include television, radio, newspapers and website postings.

Erweiterte Realschule Weiskirchen in Weiskirchen, Saarland, Germany has been scheduled for an Amateur Radio on the International (ARISS) on Saturday, May 5 at 13:34 UTC. The school is one of eleven pilot schools participating in the "Innovative all-day school" project. A radio club was formed at the school. Students participating in the contact are responsible for all aspects of the event: sponsors, catering, press, documentation and technology. Television and radio stations and the press have been notified.

5. Simonyi Contacts with Public

The U.K. BBC reported on an amateur radio contact between Matty Cunningham, MD0MAN, and Charles Simonyi, KE7KDP, on the International Space Station. The video clip can be seen at:
http://news.bbc.co.uk/media/avdb/regions/north_west/video/89000/bb/89356_16x9_bb.asx

"Space Mann" may be viewed at:
http://www.bbc.co.uk/isleofman/content/articles/2007/04/16/spacemann_feature.shtml

For the story, "Radio hams contact space station," see:
http://www.manxradio.com/readItem.aspx?ID=12064&cate=General

6. RSGB Runs Story on ARISS

The Radio Society of Great Britain ran an article in its magazine, RadCom, which covered the Amateur Radio on the International Space Station and the Columbus Module radio system. The story reported on the request for funds from the IARU and AMSAT societies to support the project.

[ANS thanks Carol, KB3LKI for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

73,
This week's ANS Editor,
JoAnne Maenpaa, K9JKM